**WPS Association**

**Goal:** Associate a station to an AP with the WPS Push and PIN methods.

In this test scenario, a LANforge CT523 is used to simulate a station connecting to a commercial AP with WPS Push mode and also with WPS PIN mode. Currently this test requires the use of a terminal on the LANforge system to run some WPS commands.

1. Create a virtual wireless station.
   A. Go to the Port Mgr tab.
B. Check wiphy0 settings by selecting wiphy0 and click **Modify**.

A. If the **Down** checkbox is selected, Click **Set IF Down** on the left, then uncheck the **Down** checkbox.

B. Make sure **Channel/Freq** is set to **AUTO**.

C. Click **OK**.
2. Create a `wpa_supplicant.conf` file.
   A. Open a terminal on the LANforge system.

   B. Create the file `wpa_supplicant.conf` in `/etc` that contains the below text. Alternatively, the command in the next step can be used to create the file.

   ```
   ctrl_interface=/var/run/wpa_supplicant
   ctrl_interface_group=0
   update_config=1
   ```
C. In the open terminal run the below command to create the `wpa_supplicant.conf` file.

```
NOTE: Please make sure `wpa_supplicant.conf` doesn't already exist in the `/etc` directory.
```

First become root: `su` -

Then run:
```
if [ ! -f '/etc/wpa_supplicant.conf' ]; then printf '%s
' ctrl_interface=/var/run/wpa_supplicant
ctrl_interface_group=0 update_config=1 > /etc/wpa_supplicant.conf; fi
```

D. Keep in mind the `wpa_supplicant.conf` file will save AP information for stations. If you want a station to forget the AP information, you'll need to recreate the `wpa_supplicant.conf` file.

3. Configure sta0 to use a the `wpa_supplicant.conf` file created in step 2.
A. Select sta0 in the Port mgr tab and click Modify.
B. In the Misc Configuration tab, select Custom WPA Cfg then inside the text field for WPA Cfg, add the path of the wpa_supplicant.conf file. In this case, we’ll be using /etc/wpa_supplicant.conf

C. Click OK.

4. Associate the station using WPS Push mode.

   A. In a terminal on the LANforge system, enter in the below command and then push your AP’s WPS button. If you aren’t root, use su -

       wpa_cli -i sta0 wps_pbc
B. Your station should now associate and get an IP.

**Note:** The SSID field in the sta0 Modify window will remain as [BLANK]. You also may see a different SSID in the View Details window, this is a bug and can be ignored for now as long as the BSSID is correct.

```
5. Associate the station using **WPS PIN mode**.
   A. Obtain your AP's BSSID and WPS PIN. This information can usually be found on the AP label or in the AP's software.

   B. In a terminal on the LANforge system, enter in the below command. Replace the x's with the BSSID and numbers with the PIN. If you aren't root, use su -

   `wpa_cli -i sta0 wps_reg xx:xx:xx:xx:xx:xx 12345678`

   ![LANforge Manager](image)
```

```
[lanforge@brent-523 ~]$ su -
Password:
[root@brent-523 ~]# wpa_cli -i sta0 wps_reg DC:EF:09:E5:6A:B7 33984823
OK
[root@brent-523 ~]#
```
C. Your station should now associate and get an IP.

**Note:** The SSID field in the sta0 Modify window will remain as [BLANK]. You also may see a different SSID in the View Details window, this is a bug and can be ignored for now as long as the BSSID is correct.

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```
1.1.0 0 eth0 192.168.100.186 0 191,161,857 187,804 7 6,094 167,788,325 296,016 7
1.1.1 0 eth1 12,907,001 13,716 0 0 156,774 8,707 0
1.1.2 0 wiphy0 28,956,743 129,952 7 17,561 21,844 2,326 0
1.1.3 0 wiphy1 0 0 0 0 0 0 0
1.1.4 0 wiphy2 0 0 0 0 0 0 0
1.1.5 0 wipa0 8,733 51 0 0 11,373 51 0
```

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Logged in as: brent:5224002 as: Admin

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